

WHAT IS CLAIMED IS:

1. A data preservation system for flash memory systems with a host system, the flash memory system receiving a host system power supply and energizing a supplemental energy store therewith and communicating with the host system via an interface bus, wherein, upon loss of the host system power supply, the flash memory system actively isolates the connection to the host system power supply and isolates the interface bus and employs the supplemental energy store to complete write operations to flash memory.

2. A data preservation system for flash memory systems receiving a power supply and experiencing power failure thereof, the data preservation system comprising:

a detection circuit in communication with the power supply;

an auxiliary power source;

an isolation circuit isolating the auxiliary power source upon a power failure;

and

controller circuitry configured to store data in volatile memory into flash memory.

3. The data preservation system of Claim 2, wherein the volatile memory comprises a tri-state buffer.

4. The data preservation system of Claim 2, wherein the detection circuit comprises a voltage detector.

5. The data preservation system of Claim 2, wherein the auxiliary power source comprises capacitors.

6. A method of preserving data in flash memory systems experiencing a power failure, the method comprising:

charging an auxiliary power source with a supply voltage;

detecting a loss of power of the supply voltage;

isolating the auxiliary power source; and

utilizing the auxiliary power source to store data stored in volatile memory into flash memory.

7. The method of Claim 6, wherein isolating the auxiliary power source comprises opening a relay interconnecting the supply voltage and the auxiliary power source.

8. The method of Claim 6, further comprising isolating a host system data bus from the flash memory system.

9. A memory device storing data stored in volatile memory into non-volatile memory wherein, upon loss of power to the memory device, at least one external connection of the device is isolated.

10. The memory device of Claim 9, wherein the external connection comprises at least one of a connection to a power supply.

11. The memory device of Claim 9, wherein the external connection comprises at least one of a connection to a data interface.

12. The memory device of Claim 9, wherein the non-volatile memory comprises a flash chip.

13. A method of storing data from volatile memory to non-volatile memory, the method comprising:

monitoring a power supply;

upon detecting a power failure of the power supply, isolating the non-volatile memory from external connections.

14. The method of Claim 13, wherein isolating the non-volatile memory from external connections comprises isolating a power supply connection.

15. The method of Claim 13, wherein isolating the non-volatile memory from external connections comprises isolating a data interface connection.

16. The method of Claim 13, wherein isolating the non-volatile memory from external connections comprises isolating a power supply connection and a data interface connection.

17. A data preservation system comprising

a power detector;

an auxiliary power source;

an isolator adapted to isolate the auxiliary power source; and

a data store storing data into non-volatile memory powered by the auxiliary power source.

18. The system of Claim 17, wherein the non-volatile memory comprises a flash card.

19. A method for storing data, the method comprising:  
detecting a power reduction;  
decoupling an auxiliary power source; and  
storing data into non-volatile memory using the auxiliary power source.

20. The method of Claim 19, further comprising decoupling a volatile memory from external connections.

21. The method of Claim 20 further comprising storing data from the volatile memory into the non-volatile memory.

22. Means for preserving data comprising:  
means for detecting loss of power;  
means for providing auxiliary power;  
means for isolating the means for preserving data upon detection of loss of power; and  
means for storing data in a non-volatile manner.